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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,693	09/12/2003	Kenneth H. Kowalski	03804/04169	7364
24024	7590	12/02/2004	EXAMINER	
CALFEE HALTER & GRISWOLD, LLP 800 SUPERIOR AVENUE SUITE 1400 CLEVELAND, OH 44114			BELLAMY, TAMIKO D	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/661,693

Applicant(s)

KOWALSKI, KENNETH H.

Examiner

Tamiko D. Bellamy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-18 and 22-33 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 10 and 21 is/are rejected.
- 7) ☒ Claim(s) 3, 5-9 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 10, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (6,067,855) in view of Mulrooney et al. (6,588,272).

Re to claims 1 and 19, as depicted in fig. 2, Brown et al. discloses a float (20) within a tank/container (1). Brown et al. discloses applying fig. 3 to the embodiment of fig. 2, wherein a plurality of magnetic reed switches (40) are connected to corresponding LEDs (41) (col. 7, lines 22-30). While Brown et al. lacks the detail of a float that is external to the tank, the device of Brown et al. would operate equally as well with an stem that is fluidically coupled to a tank. If Brown's et al. float were placed in a stem, it would still rise and fall with the level of fluid within the stem. Mulrooney et al. discloses in figs. 1 and 2 a float (48) that is external to a tank/vessel (22) and activates a plurality of magnetic switches (e.g. flag (50) containing a alignment magnet) (col. 3, lines 47-50). Therefore, to modify Brown et al. by employing a float external to the tank would have been obvious to one of ordinary skill in the art at the time of the invention since Mulrooney et al. teaches a level measurement system having theses design characteristics. The skilled artisan would be motivated to combine the teachings

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of Brown et al. and Mulrooney et al. since Brown et al states that his invention is applicable to measuring the liquid level of a sealed container and Mulrooney et al. is directed to measuring level of fluid within a sealed chamber with fluidic coupling to a tank/vessel.

Re to claims 4 and 21, as depicted in fig. 3, Brown et al. discloses each of the LEDs (41) comprise a single column of lights (41) associated in one-on-one relationship with the plurality of switches (40).

Re to claim 10, as depicted in fig. 3, the switches and the lights are on the same circuit board.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (6,067,855) in view of Mulrooney et al. (6,588,272) as applied to claims 1, 4, 10, 19, and 21 above, and further in view of Issachar (6,028,521).

Re to claim 2, the combination of Brown et al. Mulrooney et al, discloses magnetic reed switches. While, Brown et al. does not specifically disclose that the switches are Hall effect transistors, Brown et al specifically discloses (see col. 7, lines 13-15) that other magnetically actuated switches may also be suitable in place of the magnetic reed switch (40). Issachar discloses that the magnetically actable switch may be a reed switch or a hall-effect switch (col. 2, lines 30-31). Therefore, to modify the combination Brown et al. and Mulrooney et al. by employing Hall effect transistors would have been obvious to one of ordinary skill in the art at the time of the invention since Issachar teaches a liquid level sensing device having theses design characteristics. The skilled artisan would be motivated to combine the teachings of Brown et al. and Mulrooney with Issachar since Brown et al. states that his invention is applicable to

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measuring the liquid level of a container and Issachar is directed to monitoring the liquid level in a vessel.

Allowable Subject Matter

4. Claims 3, and 5-9 are objected to as being dependent upon a rejected base claim 1, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Claim 20 is objected to as being dependent upon a rejected base claim 19, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claims 11-18, and 22-33 are allowed.
7. The following is an examiner's statement of reasons for allowance:

Re to claim 11, the independent claim includes " a remote readout coupled to the switches and the electrically actuated visible indicator " in combination with the remaining claim limitation is not taught and/or made obvious by the prior art. As noted in fig. 5, Brown et al. teaches that magnetic switches (50) trigger a separate system (60) instead of illuminating the visible indicator (see '855, col. 4, lines 53-53). Brown et al. does not teach a remote readout coupled to the switches and the electrically actuated visible indicator magnetic switch.

Re to claim 16, the independent claim includes " each row having two LEDs " in combination with the remaining claim limitation is not taught and/or made obvious by the prior art. As noted in fig. 3, Brown et al. teaches one magnetic switch (40) corresponding to one LED (41). Brown et al. does not teach

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a magnetic switch associated in a one on one relationship with a row having two LEDs.

Re to claim 22, the independent claim includes “ a first indicator means having a first visible state for indicating visibly the amount of the span that is above the magnetic field, and a second indicator means having a second visible state different from the first visible state for indicating visibly the amount of the span that is below the magnetic field “ in combination with the remaining claim limitation is not taught and/or made obvious by the prior art. As noted in fig. 3, Brown et al. teaches one magnetic switch (40) corresponding to a single indicator means (e.g., LED 41), wherein the indicators means is used to visibly indicate the amount of span that is above or below the magnetic field. Brown et al. does not teach a second indicator means having a second visible state different from the first visible state for indicating visibly the amount of the span that is below the magnetic field.

Re to claim 30, the independent claim includes “ two adjacent sets of electrically latching visible indicators forming pairs of at least two visible indicators “ in combination with the remaining claim limitation is not taught and/or made obvious by the prior art. As noted in fig. 3, Brown et al. teaches one magnetic switch (40) corresponding to a single indicator means (e.g., LED 41), wherein the indicators means is used to visibly indicate the amount of span that is above or below the magnetic field. Brown et al. does not teach two adjacent sets of indicator means.

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8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

9. Applicant's arguments see pg. 8, pars. 4 and 5, filed 10/7/04, Re to claim 3 have been fully considered and are persuasive. The U.S.C. 102(b) rejection of claim 3 has been withdrawn. As noted Brown et al. teaches that a magnetic switch (40) triggers on separate system (60) instead of illuminating the visible indicator (see '855, col. 4, lines 53-53).

10. Applicant's arguments see pg. 8, last par., filed 10/7/04, Re to claim 5 have been fully considered and are persuasive. The U.S.C. 103(a) rejection of claim 5 has been withdrawn.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamiko D. Bellamy whose telephone number is (571) 272-2190. The examiner can normally be reached on Monday - Friday 6:30 AM to 12:30 PM.

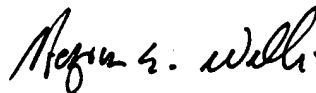
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tamiko Bellamy

11/16/04

A handwritten signature in black ink, appearing to read "Hezron Williams", followed by a long horizontal line extending to the right.

HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800